

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-20 are pending in the application, with 1, 10 and 15 being the independent claims. Claims 1, 5, 7, 8 and 15 have been amended.

Claims 1, 10 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,598,218 to Aleem *et al.* (hereinafter "Aleem") in view of U.S. Patent No. 6,069,421¹ to Smith *et al.* (hereinafter "Smith"). Claims 5, 14 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aleem in view of Smith and further in view of U.S. Patent No. 6,454,547 to Kohlhaas *et al.* (hereinafter "Kohlhaas"). Claims 1-3, 6-11, 15, 16 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 1,678,380 to Cooper (hereinafter "Cooper") in view of Smith. Finally, claims 3, 4, 12, 13, 17 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cooper in view of Smith and further in view of JP Patent No. 08159075A to Kanemitsu (hereinafter "Kanemitsu").

The amendments to claims 5, 7 and 8 have been made to remedy typographical errors. These changes are believed to introduce no new matter and do not further limit the scope of the claims in any way. Their entry is respectfully requested.

In a previous Office Action dated July 2, 2003, the drawings were objected under 37 C.F.R. 184(p)(4) and (5) for various informalities. Applicants submitted corrected drawing changes in an Office Action Response dated October 2, 2003 (a copy of which is attached hereto) but no indication as to whether the proposed changes have been approved. Applicants

¹ The Office Action of March 02, 2005 cites the Smith *et al.* reference as U.S. Patent No. 6,609,421. In a telephone call on May 13, 2005, however, the Examiner indicated that the correct Patent No. for the Smith *et al.* reference is 6,069,421.

respectfully request an indication that the proposed changes to the drawings have been approved and that the objections have been withdrawn in the next correspondence from the Examiner.

Based on the above amendment and the following Remarks, Applicants respectfully request that the examiner reconsider all outstanding objections and rejections and they be withdrawn.

I. Claims 1, 10 and 15 Are Allowable Over Aleem In View Of Smith

Claims 1, 10 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aleem in view of Smith. For the following reasons, this rejection is respectfully traversed.

Claims 1 and 15 recite “a reusable preformed cylindrical composite can member removably affixed to one of the stator and rotor. . .” Claim 10 recites “a rotor supported for rotation within the stator, wherein the stator is adapted to receive a preformed cylindrical composite can member removably affixed to the stator. . .”

With regard to claims 1 and 15, Aleem and Smith, either separately or in combination, fail to disclose, teach or suggest a reusable preformed cylindrical composite can member removably affixed to one of the stator and rotor. While Aleem may disclose a preformed cylindrical can member 12 (*See* FIG. 1) removably affixed to a rotor 10 supported for rotation within a stator, Aleem does not disclose, teach or suggest the use of a *reusable* preformed cylindrical can member removably attached to a rotor.

The rotor disclosed by Aleem is for use in electrical generators. *See* col. 1, ll. 9-11. To increase the strength of the rotor in an electrical generator, a metal canning arrangement may sometimes be welded onto the rotor. The disadvantage of such an arrangement is, to access the

rotor for repair or refurbishment, the canning arrangement may need to be cut from the rotor. In doing so, there may be a danger of damage to the interior structure of the rotor. To remedy such a problem, Aleem utilizes a “relief portion” along the interior of the canning arrangement where cutting of the can without endangering the rotor parts inside may be accomplished. *See* col. 1, ll. 36-44 and col. 3, ll. 21-25. After cutting, the welded can may be removed from the rotor in sections. *See* FIG. 5. In the system disclosed by Aleem, once the welded canning arrangement is cut from the rotor, the canning apparatus may not be reused. Before the rotor may be placed back into the strator, it must be provided with a *new* welded canning arrangement. *See* col.4, ll. 1-2. Therefore, Aleem does not disclose or suggest the use of a *reusable* canning arrangement removably attached to a rotor or strator, as recited in claims 1 and 15.

Furthermore, Smith fails to rectify the deficiencies of Aleem. Rather, Smith teaches a can member permanently affixed to one of the stator and rotor. More particularly, Smith describes an electric motor having a composite encapsulated stator and rotor for submersion into liquid. *See* col. 2, ll. 55-56. Smith discloses that a chemical weld seals each layer of the canning arrangement to the rotor and stator. *See* col. 2, ll. 34-35. Accordingly, the can member is permanently affixed to the rotor and stator. In other words, Smith teaches a composite can member that is permanently welded onto the rotor and not able to be removed and reused, as recited in claims 1 and 15.

With regard to claim 10, Aleem and Smith, either separately or in combination, fail to teach or suggest a preformed cylindrical composite can member removably affixed to a *stator*. As discussed above with regard to claims 1 and 15, Aleem discloses the use of a metal canning arrangement removably affixed to a rotor. The canning arrangement may be removed so as to

provide access to the *rotor* for its repair or refurbishment. As such, there is neither any mention nor any suggestion of the use of a canning arrangement removably attached to a *stator*.

Therefore, Aleem does not disclose, teach or suggest the use of a can member removably affixed to a stator, as recited by claim 10.

Furthermore, Smith fails to rectify the deficiency of Aleem. Rather, Smith teaches a can member *permanently* affixed to a rotor. More particularly, Smith describes an electric motor having a composite encapsulated stator and rotor for submersion into liquid. *See col. 2, ll. 55-56.* Smith discloses that a chemical weld seals each layer of the canning arrangement to the rotor and stator. *See col. 2, ll. 34-35.* Accordingly, the can member is permanently affixed to the rotor. In other words, Smith teaches a composite can member that is permanently welded onto the rotor and therefore not removable, as recited in claim 10.

Because Aleem and Smith, either separately or in combination, each fail to disclose, teach or suggest the claimed apparatus, claims 1, 10 and 15 are allowable over Aleem in view of Smith. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 1, 10 and 15.

II. Claims 5, 14 and 19 Are Allowable Over Aleem
In View Of Smith And Further In View Of Kohlhaas

As described above, Aleem in view of Smith fails to disclose, teach or suggest the claimed invention as recited by claims 1, 10 and 15. Furthermore, Kohlhaas fails to rectify the deficiencies of Aleem and Smith. Rather, Kohlhaas discloses a stator and rotor to be used for feeding fluid from one location to another in a motor vehicle. More particularly, Kohlhaas is concerned only with the types of “veins” covering the rotor for aiding the flow of fluid through

the motor. *See* col. 2, ll. 45-65. Kohlhaas is silent as to whether any type of canning arrangement is used for covering either the rotor or stator. Therefore, Kohlhaas does not disclose, teach or suggest the use of a removable canning arrangement.

Because Kohlhaas fails to cure the deficiencies of Aleem in view of Smith as discussed above, claims 5, 14 and 19 are allowable over Aleem in view of Smith and further in view of Kohlhaas for at least these reasons. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 5, 14 and 19.

III. Claims 1-3, 6-11, 15, 16 and 20 Are Allowable Over Cooper In View Of Smith

Claims 1-3, 6-11, 15, 16 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cooper in view of Smith. For the following reasons, this rejection is respectfully traversed.

Claims 1, 10 and 15 recite “a . . . preformed cylindrical composite can member removably affixed to . . . [a stator or rotor].” Cooper and Smith, both separately and in combination, fail to disclose, teach or suggest a preformed cylindrical composite can member removably affixed to either a stator or a rotor. The Office Action alleges that Cooper discloses “a preformed cylindrical plastic can member (10, 24, 25) removable [sic] affixed to one of the stator (2) and the rotor. . . .” *See* Office Action, p.3, ¶.2. While Cooper may disclose a can member affixed to a stator, Cooper does not disclose that the can member is *removably* affixed to the stator.

Cooper discloses a stator that may be submerged into a liquid environment without being subject to damage from the penetration of liquid into the stator core. *See* p.1, ll.3-14. To protect

the stator from such damage, Cooper discloses that the stator 2 may be encapsulated by an insulating cover 10, 11, 20. *See* p.1, ll.15-21 *and* FIGS. 1, 3. The insulating cover 10, 11, 20 is created by coating the stator 2 (held in place by a frame 1 and screws 28-30) with an insulating plastic material so that the entire stator is covered. *See* p.1, ll.71-81 *and* FIG. 3. The plastic material is then “subjected to heavy pressure to compress the material and form a solid coating . . . after which [it] is subjected to a suitably high temperature whereby it becomes a hard and strong insulating covering which is non-hygroscopic so that water, oil, or other fluid cannot penetrate. . . .” *See* p.1, ll.88-97. Once the insulating cover is created, the stator may be removed from the frame for winding. *See* p.2, ll.29-34. As disclosed by Cooper, upon removal of the screws and frame, the insulating material remains attached to the stator 2. *See* p.2, ll.29-34. Therefore, the insulating cover 10, 11, 20 disclosed by Cooper is *permanently* attached to the stator 2 and not *removably* affixed by screws, as alleged in the Office Action.

Furthermore, Smith fails to rectify the deficiencies of Cooper. Rather, Smith teaches a can member permanently affixed to one of the stator and rotor. More particularly, Smith describes an electric motor having a composite encapsulated stator and rotor for submersion into liquid. *See* col. 2, ll. 55-56. Smith discloses that a chemical weld seals each layer of the canning arrangement to the rotor and stator. *See* col. 2, ll. 34-35. Accordingly, the can member is permanently affixed to either the rotor or the stator. In other words, Smith teaches a composite can member that is permanently welded onto the rotor and not able to be removed and reused, as recited in claims 1, 10 and 15.

Because Cooper and Smith, separately or in combination, fail to disclose, teach or suggest the claimed apparatus, claims 1, 10 and 15 are allowable over Cooper in view of Smith. By virtue

of their dependency from claims 1, 10 or 15, claims 2, 3, 6-9, 11, 16 and 20 are also allowable for at least these reasons. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 1-3, 6-11, 15, 16 and 20.

IV. Claims 3, 4, 12, 13, 17 and 18 Are Allowable Over
Cooper In View Of Smith And Further In View Of Kanemitsu

As described above, Cooper in view of Smith fails to disclose, teach or suggest the claimed invention as recited by claims 1, 10 and 15. Furthermore, Kanemitsu fails to rectify the deficiencies of Cooper and Smith. Rather, Kanemitsu discloses a stator and rotor to be used for feeding fluid from one location to another. *See abstract.* More particularly, Kanemitsu is concerned only with the types of ridges covering the rotor for aiding the flow of fluid through the motor. *See abstract.* Kanemitsu is silent as to whether any type of canning arrangement is used for covering either the rotor or stator. Therefore, Kanemitsu does not disclose, teach or suggest the use of a *removable* canning arrangement.

Because Kanemitsu fails to cure the deficiencies of Cooper in view of Smith as discussed above, claims 3, 4, 12, 13, 17 and 18 are allowable over Cooper in view of Smith and further in view of Kanemitsu for at least these reasons. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 3, 4, 12, 13, 17 and 18.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,


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